

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) An aircraft fuel tank system comprising:

at least one aircraft fuel tank;

an air separation ~~means for~~ device producing nitrogen-enriched air, and

a control ~~means~~ device operable to control said air separation ~~means~~ device to supply nitrogen-enriched air into said at least one aircraft fuel tank during cruise conditions and to supply nitrogen-enriched air at a higher flow rate during descent, whereby the whole of the mass of gas required to maintain the pressure difference across the walls of the fuel tank below a predetermined ~~design~~ threshold is provided by said air separation ~~means~~ device, without inward venting of ambient air.

2. (cancelled)

3. (currently amended) The aircraft fuel tank system as claimed in Claim-~~2~~1, wherein said air separation ~~means~~device in use provides nitrogen-enriched air having a high concentration of nitrogen at low mass flow rates, and a low concentration of nitrogen ~~being lower at higher~~high mass flow rates, wherein said high concentration is higher than said low concentration, and said high mass flow rate is higher than said low mass flow rate.

4. (currently amended) The aircraft fuel tank system as claimed in claim 1, including ~~means for a~~a distribution network distributing the nitrogen-enriched air at a number of spaced locations in said at least one aircraft fuel tank, thereby in use to reduce variations in concentration of nitrogen within said tank.

5. (currently amended) The aircraft fuel tank system as claimed in claim 1, wherein said air separation device ~~means~~ comprises a Hollow Fibre Membrane.

6. (currently amended) An aircraft fuel tank system comprising:  
at least one aircraft fuel tank;

a source ~~means for~~ providing nitrogen-enriched air for delivery into said at least one tank, and a distribution network ~~means for~~ distributing said nitrogen-enriched air at a number of spaced locations within said at least one tank.

7. (currently amended) The aircraft fuel system as claimed in Claim 6, wherein ~~said substantially~~ the entire amount of nitrogen-enriched air is drawn from said ~~providing means~~ source providing nitrogen enriched air.

8. (currently amended) A method of inerting at least one aircraft fuel tank which comprises operating an air separation device during cruise conditions to deliver nitrogen-enriched air with a high concentration of nitrogen at a low mass flow rate into said aircraft fuel tank, and operating said air separation device during descent conditions to deliver nitrogen-enriched air with a lower concentration of nitrogen and at a high mass flow rate, whereby the air-separation device provides the whole of the mass of gas required to maintain the pressure difference across the walls of the or each fuel tank below a predetermined design threshold, without inward venting of ambient air, wherein said high concentration is higher than said low concentration, and said high mass flow rate is higher than said low mass flow rate.

9. (currently amended) The aircraft fuel tank system as claimed in claim-~~2~~ 1, including a distribution network ~~means~~ ~~for~~ distributing the nitrogen-enriched air at a number of spaced locations in said at least one aircraft fuel tank, thereby in use to reduce variations in concentration of nitrogen within said tank.

10. (cancelled)

11. (currently amended) The aircraft fuel tank system as claimed in claim-~~2~~ 1, wherein said air separation ~~means~~ device comprises a Hollow Fibre Membrane.

12. (currently amended) The aircraft fuel tank system as claimed in claim 3, wherein said air separation ~~means~~ device comprises a Hollow Fibre Membrane.

13. (currently amended) The aircraft fuel tank system as claimed in claim 4, wherein said air separation device ~~means~~ comprises a Hollow Fibre Membrane.